Table 1: THE HYPERVOLUME PERFORMANCE OF EACH SUBSET SELECTION METHOD ON EACH CANDIDATE SOLUTION SET. THE NUMBER OF SOLUTIONS IN EACH CANDIDATESOLUTION SET IS 100,000. THE NUMBER IN THE PARENTHESIS IS THE RANK OF THE CORRESPONDING METHOD AMONG THE 12 METHODS, WHERE A SMALLER VALUE INDICATES A BETTER RANK.

Candidate Solution Set	GHSS	GAHSS	GIGDSS	GIGD+SS	DSS	IDSS	CSS-MEA	CSS-MED	RVSS-PD	POHVSS	POIGDSS	POIGD+SS
3	1.52E+0(2)	1.52E+0(3)	-(11.5)	-(11.5)	1.51E+0(4)	1.51E+0(5)	1.43E+0(7)	1.43E + 0(6)	1.52E+0(1)	1.39E+0(8)	1.36E + 0(9)	1.35E+0(10)
Linear 5	2.46E+0(1)	2.45E+0(2)	-(11.5)	-(11.5)	2.45E+0(3)	2.42E+0(5)	2.10E+0(10)	2.12E+0(7)	2.45E+0(4)	2.21E+0(6)	2.11E+0(9)	2.11E+0(8)
Triangular 8	-(11)	4.29E+0(1)	-(11)	-(11)	4.28E+0(2)	4.21E+0(4)	3.56E+0(8)	3.53E+0(9)	4.27E+0(3)	3.92E+0(5)	3.80E+0(6)	3.76E+0(7)
10	-(11)	6.19E+0(1)	-(11)	-(11)	6.18E+0(2)	6.11E+0(4)	5.55E+0(6)	5.47E+0(7)	6.17E+0(3)	5.67E+0(5)	5.45E+0(8)	5.34E+0(9)
Linear 3	5.31E-1(1)	5.29E-1(2)	-(11.5)	-(11.5)	5.25E-1(3)	5.22E-1(4)	5.11E-1(6)	5.11E-1(5)	5.03E-1(7)	4.29E-1(9)	4.34E-1(8)	4.26E-1(10)
Inverted 5	9.10E-2(1)	9.05E-2(2)	-(11.5)	-(11.5)	8.97E-2(3)	8.49E-2(4)	7.99E-2(6)	8.02E-2(5)	7.78E-2(7)	4.78E-2(8)	4.75E-2(9)	4.46E-2(10)
Triangular 8	1.92E-3(1)	1.87E-3(3)	-(11.5)	-(11.5)	1.88E-3(2)	1.82E-3(4)	1.58E-3(6)	1.59E-3(5)	1.06E-3(7)	8.67E-4(8)	7.54E-4(10)	8.13E-4(9)
111angulai 10	-(11)	1.46E-4(2)	-(11)	-(11)	1.48E-4(1)	1.38E-4(3)	1.16E-4(4)	1.16E-4(5)	7.27E-5(6)	4.32E-5(8)	4.13E-5(9)	4.60E-5(7)
3	1.15E+0(1)	1.15E+0(2)	-(11.5)	-(11.5)	1.14E+0(3)	1.12E+0(5)	1.04E+0(7)	1.04E+0(6)	1.14E+0(4)	9.74E-1(8)	9.14E-1(10)	9.65E-1(9)
Concave 5	2.20E+0(1)	2.18E+0(2)	-(11.5)	-(11.5)	2.15E+0(4)	2.02E+0(5)	1.58E+0(6)	1.58E+0(7)	2.17E+0(3)	1.52E+0(8)	1.33E+0(10)	1.42E+0(9)
Triangular 8	4.09E+0(1)	4.07E+0(2)	-(11.5)	-(11.5)	4.00E+0(4)	3.40E+0(5)	2.07E+0(8)	2.02E+0(10)	4.03E+0(3)	2.31E+0(6)	2.02E+0(9)	2.16E+0(7)
10	-(11)	6.01E+0(1)	-(11)	-(11)	5.93E+0(3)	4.97E+0(4)	3.22E+0(5)	2.92E+0(7)	5.94E+0(2)	3.20E+0(6)	2.50E+0(9)	2.84E+0(8)
Concave 3	2.26E-1(1)	2.24E-1(2)	-(11.5)	-(11.5)	2.20E-1(3)	2.10E-1(5)	1.94E-1(7)	1.95E-1(6)	2.12E-1(4)	1.65E-1(8)	1.48E-1(10)	1.58E-1(9)
Inverted 5	2.02E-2(1)	1.99E-2(2)	-(11.5)	-(11.5)	1.86E-2(3)	1.39E-2(4)	1.20E-2(6)	1.22E-2(5)	9.27E-3(7)	7.24E-3(8)	6.23E-3(10)	6.59E-3(9)
Triangular 10	2.34E-4(1)	2.29E-4(2)	-(11.5)	-(11.5)	2.17E-4(3)	1.10E-4(4)	9.22E-5(6)	9.41E-5(5)	8.33E-5(7)	4.47E-5(8)	3.65E-5(10)	4.17E-5(9)
111angulai 10	-(11)	1.09E-5(1)	-(11)	-(11)	1.02E-5(2)	4.53E-6(5)	5.17E-6(4)	5.96E-6(3)	2.82E-6(6)	1.69E-6(7)	1.18E-6(9)	1.41E-6(8)
3	1.71E+0(1)	1.71E+0(4)	-(11.5)	-(11.5)	1.71E+0(3)	1.71E+0(2)	1.71E+0(7)	1.71E+0(6)	1.71E+0(5)	1.69E+0(9)	1.69E+0(8)	1.68E+0(10)
Convex 5	2.49E+0(1)	2.49E+0(5)	-(11.5)	-(11.5)	2.49E+0(2)	2.49E+0(3)	2.49E+0(6)	2.49E+0(7)	2.49E+0(4)	2.48E+0(8)	2.48E+0(9)	2.47E+0(10)
Triangular 8	-(11)	4.30E+0(4)	-(11)	-(11)	4.30E+0(1)	4.30E+0(2)	4.30E+0(5)	4.30E+0(6)	4.30E+0(3)	4.30E+0(7)	4.29E+0(8)	4.28E+0(9)
10	-(11)	6.19E+0(4)	-(11)	-(11)	6.19E+0(1)	6.19E+0(3)	6.19E+0(6)	6.19E+0(5)	6.19E+0(2)	6.19E+0(7)	6.19E+0(8)	6.12E+0(9)
Convex 3	1.04E+0(1)	1.04E+0(4)	-(11.5)	-(11.5)	1.04E+0(6)	1.04E+0(5)	1.04E+0(2)	1.04E+0(3)	1.01E+0(7)	9.41E-1(8)	9.29E-1(10)	9.32E-1(9)
Inverted 5	5.01E-1(1)	4.91E-1(2)	-(11.5)	-(11.5)	4.63E-1(6)	4.72E-1(5)	4.88E-1(4)	4.89E-1(3)	3.71E-1(7)	3.16E-1(8)	3.14E-1(9)	3.06E-1(10)
× × × × ×	6.43E-2(1)	6.14E-2(2)	-(11.5)	-(11.5)	3.79E-2(6)	4.45E-2(5)	5.60E-2(4)	5.74E-2(3)	3.49E-2(7)	2.72E-2(8)	2.59E-2(10)	2.59E-2(9)
Triangular 10	1.47E-2(1)	1.41E-2(2)	-(11.5)	-(11.5)	6.95E-3(7)	9.10E-3(5)	1.23E-2(4)	1.28E-2(3)	8.25E-3(6)	3.99E-3(9)	4.08E-3(8)	3.76E-3(10)
Avg Rank	3.96	2.38	11.35	11.35	3.21	4.17	5.83	5.58	4.79	7.50	8.96	8.92

Table 2: THE IGD PERFORMANCE OF EACH SUBSET SELECTION METHOD ON EACH CANDIDATE SOLUTION SET. THE NUMBER OF SOLUTIONS IN EACH CANDIDATES-OLUTION SET IS 100,000. THE NUMBER IN THE PARENTHESIS IS THE RANK OF THE CORRESPONDING METHOD AMONG THE 12 METHODS, WHERE A SMALLER VALUE INDICATES A BETTER RANK.

Candidate Solution Set	GHSS	GAHSS	GIGDSS	GIGD+SS	DSS	IDSS	CSS-MEA	CSS-MED	RVSS-PD	POHVSS	POIGDSS	POIGD+SS
3 4	1.27E-2(6)	4.24E-2(5)	-(11.5)	-(11.5)	4.38E-2(7)	4.04E-2(3)	3.70E-2(1)	3.71E-2(2)	4.12E-2(4)	9.71E-2(10)	9.31E-2(9)	9.24E-2(8)
Linear 5	1.06E-1(7)	1.01E-1(5)	-(11.5)	-(11.5)	9.86E-2(4)	9.25E-2(3)	8.17E-2(1)	8.20E-2(2)	1.04E-1(6)	1.86E-1(10)	1.66E-1(8)	1.68E-1(9)
Triangular 8	-(11)	1.85E-1(6)	-(11)	-(11)	1.77E-1(5)	1.57E-1(3)	1.33E-1(2)	1.32E-1(1)	1.72E-1(4)	2.22E-1(9)	2.02E-1(8)	2.02E-1(7)
10	-(11)	1.88E-1(6)	-(11)	-(11)	1.76E-1(4)	1.57E-1(3)	1.36E-1(2)	1.36E-1(1)	1.77E-1(5)	2.30E-1(9)	2.11E-1(7)	2.14E-1(8)
Linear 3	1.53E-2(6)	4.37E-2(4)	-(11.5)	-(11.5)	4.39E-2(5)	4.03E-2(3)	3.71E-2(1)	3.72E-2(2)	7.07E-2(7)	9.07E-2(10)	8.17E-2(8)	8.94E-2(9)
Inverted 5	1.05E-1(6)	1.05E-1(5)	-(11.5)	-(11.5)	9.89E-2(4)	9.25E-2(3)	8.16E-2(1)	8.19E-2(2)	1.32E-1(7)	1.66E-1(9)	1.61E-1(8)	1.72E-1(10)
X .	1.67E-1(5)	1.60E-1(4)	-(11.5)	-(11.5)	1.76E-1(6)	1.57E-1(3)	1.33E-1(2)	1.32E-1(1)	1.99E-1(7)	2.02E-1(8)	2.05E-1(10)	2.03E-1(9)
Triangular 10	-(11)	1.63E-1(4)	-(11)	-(11)	1.74E-1(5)	1.57E-1(3)	1.36E-1(2)	1.35E-1(1)	1.87E-1(6)	2.15E-1(9)	2.11E-1(8)	2.08E-1(7)
3 '	7.45E-2(7)	6.38E-2(6)	-(11.5)	-(11.5)	5.53E-2(4)	5.36E-2(3)	4.99E-2(1)	5.00E-2(2)	5.78E-2(5)	1.36E-1(10)	1.25E-1(9)	1.22E-1(8)
Concave 5	2.24E-1(7)	1.83E-1(5)	-(11.5)	-(11.5)	1.58E-1(4)	1.54E-1(3)	1.40E-1(1)	1.40E-1(2)	1.83E-1(6)	3.06E-1(10)	2.73E-1(8)	2.96E-1(9)
Triangular 8	4.19E-1(8)	3.88E-1(6)	-(11.5)	-(11.5)	3.30E-1(4)	3.13E-1(3)	2.78E-1(2)	2.77E-1(1)	3.78E-1(5)	4.40E-1(10)	4.04E-1(7)	4.22E-1(9)
10	-(11)	4.25E-1(6)	-(11)	-(11)	3.64E-1(4)	3.47E-1(3)	3.14E-1(2)	3.12E-1(1)	4.18E-1(5)	4.95E-1(9)	4.64E-1(7)	4.68E-1(8)
Concave 3:	3.68E-2(6)	3.50E-2(5)	-(11.5)	-(11.5)	2.83E-2(4)	2.69E-2(3)	2.43E-2(1)	2.43E-2(2)	6.86E-2(8)	7.28E-2(9)	6.84E-2(7)	7.63E-2(10)
Inverted 5	6.48E-2(6)	5.62E-2(5)	-(11.5)	-(11.5)	4.32E-2(4)	3.74E-2(3)	3.20E-2(1)	3.22E-2(2)	2.75E-1(10)	9.41E-2(9)	7.77E-2(7)	8.93E-2(8)
	9.76E-2(9)	8.50E-2(8)	-(11.5)	-(11.5)	6.43E-2(4)	4.69E-2(3)	3.68E-2(1)	3.69E-2(2)	3.20E-1(10)	7.81E-2(7)	6.62E-2(5)	7.16E-2(6)
Triangular 10	-(11)	7.22E-2(8)	-(11)	-(11)	5.35E-2(4)	3.86E-2(3)	3.11E-2(1)	3.11E-2(2)	5.19E-1(9)	6.20E-2(6)	5.90E-2(5)	6.23E-2(7)
3 :	2.78E-2(4)	2.94E-2(6)	-(11.5)	-(11.5)	2.85E-2(5)	2.69E-2(3)	2.42E-2(1)	2.43E-2(2)	4.46E-2(7)	7.08E-2(9)	6.00E-2(8)	7.24E-2(10)
Convex 5	3.79E-2(5)	3.60E-2(3)	-(11.5)	-(11.5)	4.32E-2(6)	3.73E-2(4)	3.20E-2(1)	3.21E-2(2)	5.09E-2(7)	8.36E-2(9)	7.51E-2(8)	9.05E-2(10)
Triangular 8	-(11)	4.53E-2(3)	-(11)	-(11)	6.38E-2(6)	4.68E-2(4)	3.69E-2(1)	3.69E-2(2)	5.40E-2(5)	7.46E-2(8)	6.88E-2(7)	7.89E-2(9)
10	-(11)	3.66E-2(3)	-(11)	-(11)	5.37E-2(6)	3.83E-2(4)	3.10E-2(1)	3.11E-2(2)	4.15E-2(5)	6.38E-2(8)	5.87E-2(7)	7.58E-2(9)
3 :	5.45E-2(5)	5.44E-2(4)	-(11.5)	-(11.5)	5.46E-2(6)	5.38E-2(3)	4.99E-2(1)	5.00E-2(2)	7.46E-2(7)	1.16E-1(9)	1.15E-1(8)	1.24E-1(10)
Convex 5	1.54E-1(5)	1.49E-1(3)	-(11.5)	-(11.5)	1.59E-1(6)	1.54E-1(4)	1.40E-1(1)	1.40E-1(2)	2.06E-1(7)	2.75E-1(9)	2.64E-1(8)	2.83E-1(10)
Inverted 8	2.99E-1(4)	2.89E-1(3)	-(11.5)	-(11.5)	3.28E-1(6)	3.13E-1(5)	2.78E-1(2)	2.77E-1(1)	3.79E-1(7)	4.11E-1(9)	4.07E-1(8)	4.19E-1(10)
		3.26E-1(3)	-(11.5)	-(11.5)	3.68E-1(6)	3.47E-1(5)	3.15E-1(2)	3.12E-1(1)	4.03E-1(7)	4.67E-1(9)	4.54E-1(8)	4.73E-1(10)
Avg Rank	7.38	4.83	11.35	11.35	4.96	3.33	1.33	1.67	6.50	8.92	7.62	8.75

Table 3: THE IGD+ PERFORMANCE OF EACH SUBSET SELECTION METHOD ON EACH CANDIDATE SOLUTION SET. THE NUMBER OF SOLUTIONS IN EACH CANDIDATESOLUTION SET IS 100,000. THE NUMBER IN THE PARENTHESIS IS THE RANK OF THE CORRESPONDING METHOD AMONG THE 12 METHODS, WHERE A SMALLER VALUE INDICATES A BETTER RANK.

Candidate Solution Set	GHSS	GAHSS	GIGDSSG	GIGD+SS	DSS	IDSS	CSS-MEA	CSS-MED	RVSS-PD	POHVSS	POIGDSS	POIGD+SS
3	2.96E-2(6)	2.94E-2(5)	-(11.5)	-(11.5)	3.04E-2(7)	2.81E-2(3)	2.57E-2(1)	2.57E-2(2)	2.92E-2(4)	6.70E-2(10)	6.40E-2(9)	6.31E-2(8)
Linear 5	7.35E-2(6)	7.02E-2(5)	-(11.5)	-(11.5)	6.89E-2(4)	6.33E-2(3)	5.51E-2(2)	5.50E-2(1)	7.50E-2(7)	1.26E-1(10)	1.10E-1(8)	1.11E-1(9)
Triangular 8	-(11)	1.31E-1(7)	-(11)	-(11)	1.25E-1(5)	1.08E-1(3)	8.60E-2(2)	8.56E-2(1)	1.20E-1(4)	1.49E-1(9)	1.32E-1(8)	1.30E-1(6)
10	-(11)	1.34E-1(6)	-(11)	-(11)	1.24E-1(4)	1.07E-1(3)	8.74E-2(2)	8.66E-2(1)	1.25E-1(5)	1.53E-1(9)	1.36E-1(8)	1.36E-1(7)
Linear 3	3.12E-2(6)	3.01E-2(5)	-(11.5)	-(11.5)	2.98E-2(4)	2.79E-2(3)	2.61E-2(1)	2.61E-2(2)	5.15E-2(7)	6.26E-2(10)	5.68E-2(8)	6.19E-2(9)
Inverted 5	6.98E-2(5)	7.00E-2(6)	-(11.5)	-(11.5)	6.61E-2(4)	6.27E-2(3)	5.84E-2(2)	5.84E-2(1)	8.49E-2(7)	1.14E-1(9)	1.12E-1(8)	1.19E-1(10)
Triangular 10	1.09E-1(5)	1.08E-1(4)	-(11.5)	-(11.5)	1.14E-1(6)	1.05E-1(3)	9.70E-2(2)	9.68E-2(1)	1.34E-1(7)	1.39E-1(8)	1.44E-1(10)	1.41E-1(9)
111angulai 10	-(11)	1.09E-1(4)	-(11)	-(11)	1.13E-1(5)	1.05E-1(3)	9.90E-2(2)	9.88E-2(1)	1.30E-1(6)	1.49E-1(9)	1.49E-1(8)	1.45E-1(7)
3	2.26E-2(1)	2.46E-2(2)	-(11.5)	-(11.5)	2.54E-2(3)	2.61E-2(4)	2.73E-2(6)	2.75E-2(7)	2.61E-2(5)	6.68E-2(9)	7.42E-2(10)	6.38E-2(8)
Concave 5	7.12E-2(1)	7.42E-2(2)	-(11.5)	-(11.5)	7.79E-2(3)	8.27E-2(5)	8.76E-2(7)	8.76E-2(6)	7.86E-2(4)	1.75E-1(9)	1.83E-1(10)	1.74E-1(8)
Triangular 8	1.70E-1(2)	1.70E-1(1)	-(11.5)	-(11.5)	1.73E-1(4)	1.82E-1(5)	1.93E-1(7)	1.93E-1(6)	1.70E-1(3)	2.79E-1(9)	2.80E-1(10)	2.73E-1(8)
10	-(11)	1.96E-1(1)	-(11)	-(11)	2.00E-1(3)	2.09E-1(4)	2.18E-1(5)	2.19E-1(6)	1.96E-1(2)	3.18E-1(8)	3.25E-1(9)	3.12E-1(7)
Concave 3	1.12E-2(4)	9.92E-3(1)	-(11.5)	-(11.5)	1.03E-2(2)	1.09E-2(3)	1.37E-2(6)	1.35E-2(5)	1.90E-2(7)	3.35E-2(8)	4.06E-2(10)	3.63E-2(9)
Inverted 5	1.60E-2(2)	1.51E-2(1)	-(11.5)	-(11.5)	1.60E-2(3)	1.75E-2(4)	2.21E-2(6)	2.17E-2(5)	6.93E-2(10)	5.02E-2(7)	5.18E-2(9)	5.14E-2(8)
Triangular 10	2.39E-2(4)	2.17E-2(1)	-(11.5)	-(11.5)	2.21E-2(2)	2.32E-2(3)	2.79E-2(6)	2.78E-2(5)	6.03E-2(10)	4.71E-2(8)	4.82E-2(9)	4.57E-2(7)
111angulai 10	-(11)	1.92E-2(2)	-(11)	-(11)	1.89E-2(1)	2.04E-2(3)	2.36E-2(4)	2.37E-2(5)	6.72E-2(9)	3.93E-2(6)	4.43E-2(8)	4.11E-2(7)
3	1.15E-2(4)	1.10E-2(1)	-(11.5)	-(11.5)	1.52E-2(6)	1.35E-2(5)	1.11E-2(2)	1.12E-2(3)	2.11E-2(7)	3.26E-2(10)	2.76E-2(8)	2.78E-2(9)
Convex 5	1.88E-2(4)	1.57E-2(3)	-(11.5)	-(11.5)	2.74E-2(6)	2.11E-2(5)	1.37E-2(1)	1.39E-2(2)	3.04E-2(7)	4.21E-2(10)	3.59E-2(9)	3.36E-2(8)
Triangular 8	-(11)	2.26E-2(4)	-(11)	-(11)	2.87E-2(6)	3.08E-2(7)	1.50E-2(2)	1.49E-2(1)	1.68E-2(3)	3.58E-2(9)	3.14E-2(8)	2.81E-2(5)
10	-(11)	1.93E-2(4)	-(11)	-(11)	2.35E-2(5)	2.40E-2(6)	1.27E-2(1)	1.27E-2(2)	1.37E-2(3)	3.15E-2(9)	2.66E-2(8)	2.41E-2(7)
Convex 3	2.59E-2(1)	2.68E-2(4)	-(11.5)	-(11.5)	2.95E-2(6)	2.90E-2(5)	2.64E-2(2)	2.65E-2(3)	4.30E-2(7)	5.77E-2(8)	6.39E-2(10)	5.96E-2(9)
Inverted 5	7.30E-2(1)	7.88E-2(2)	-(11.5)	-(11.5)	9.65E-2(6)	9.10E-2(5)	8.04E-2(3)	8.05E-2(4)	1.46E-1(7)	1.51E-1(8)	1.55E-1(9)	1.56E-1(10)
Triangular 8	1.49E-1(1)	1.56E-1(2)	-(11.5)	-(11.5)	2.22E-1(6)	2.05E-1(5)	1.70E-1(4)	1.67E-1(3)	2.27E-1(7)	2.43E-1(8)	2.49E-1(10)	2.46E-1(9)
	1.69E-1(1)	1.74E-1(2)	-(11.5)	-(11.5)	2.51E-1(7)	2.28E-1(5)	1.91E-1(4)	1.88E-1(3)	2.29E-1(6)	2.80E-1(9)	2.79E-1(8)	2.84E-1(10)
Avg Rank	5.46	3.12	11.35	11.35	4.50	4.08	3.33	3.17	6.00	8.71	8.83	8.08

Table 4: THE RUNTIME PERFORMANCE OF EACH SUBSET SELECTION METHOD ON EACH CANDIDATE SOLUTION SET. THE NUMBER OF SOLUTIONS IN EACH CANDIDATESOLUTION SET IS 100,000. THE NUMBER IN THE PARENTHESIS IS THE RANK OF THE CORRESPONDING METHOD AMONG THE 12 METHODS, WHERE A SMALLER VALUE INDICATES A BETTER RANK.

Candidate Solution Set	GHSS	GAHSS	GIGDSS	GIGD+SS	DSS	IDSS	CSS-MEA	CSS-MED	RVSS-PD	POHVSS I	POIGDSS	POIGD+SS
3	1.44E+2(6)	2.57E+1(4)	-(11.5)	-(11.5)	7.12E+0(3)	1.31E+0(2)	3.82E+1(5)	8.00E+2(10)	3.54E-1(1)	5.46E+2(7) 5	5.56E+2(8)	5.72E+2(9)
Linear 5	4.65E+2(6)	8.93E+1(5)	-(11.5)	-(11.5)	4.48E+1(3)	1.65E+0(2)	8.31E+1(4)	8.29E+2(10)	1.42E+0(1)	4.79E+2(7) 5	5.24E+2(8)	6.09E+2(9)
Triangular 8	-(11)	5.97E+1(5)	-(11)	-(11)	3.06E+1(3)	1.41E+0(2)	3.95E+1(4)	6.06E+2(9)	5.74E-1(1)	4.71E+2(7) 4	1.41E+2(6)	4.81E+2(8)
10	-(11)	8.88E+1(5)	-(11)	-(11)	5.26E+1(4)	1.92E+0(2)	3.51E+1(3)	5.18E+2(8)	5.23E-1(1)	4.75E+2(7) 3	3.47E+2(6)	5.25E+2(9)
Linear 3	1.11E+2(6)	2.50E+1(4)	-(11.5)	-(11.5)	5.58E+0(3)	1.30E+0(2)	4.81E+1(5)	7.96E+2(10)	4.29E-1(1)	5.16E+2(8) 5	5.10E+2(7)	5.50E+2(9)
Inverted 5	2.95E+2(6)	8.67E+1(5)	-(11.5)	-(11.5)	5.60E+1(3)	1.62E+0(2)	7.78E+1(4)	8.46E+2(10)	1.28E+0(1)	4.60E+2(7) 4	1.64E+2(8)	5.80E+2(9)
Triangular 10	6.99E+2(10)	5.76E+1(5)	-(11.5)	-(11.5)	3.11E+1(3)	1.34E+0(2)	3.79E+1(4)	5.78E+2(9)	5.75E-1(1)	3.95E+2(6) 4	1.57E+2(7)	5.42E+2(8)
111angulai 10	-(11)	1.02E+2(5)	-(11)	-(11)	7.20E+1(4)	1.89E+0(2)	3.45E+1(3)	4.80E+2(7)	4.22E-1(1)	4.85E+2(8) 3	3.96E+2(6)	5.57E+2(9)
3	1.37E+2(6)	2.59E+1(4)	-(11.5)	-(11.5)	7.12E+0(3)	1.26E+0(2)	3.34E+1(5)	7.95E+2(10)	6.28E-1(1)	5.20E+2(7) 5	5.31E+2(8)	5.79E+2(9)
Concave 5	3.29E+2(6)	1.03E+2(5)	-(11.5)	-(11.5)	6.03E+1(3)	1.94E+0(2)	6.86E+1(4)	8.30E+2(10)	8.42E-1(1)	4.45E+2(7) 4	1.79E+2(8)	5.95E+2(9)
Triangular 8	1.71E+3(10)	5.31E+1(4)	-(11.5)	-(11.5)	3.46E+1(3)	1.34E+0(2)	6.07E+1(5)	6.54E+2(9)	6.81E-1(1)	4.09E+2(6) 4	1.49E+2(7)	5.22E+2(8)
10	-(11)	7.82E+1(4)	-(11)	-(11)	8.08E+1(5)	1.79E+0(2)	7.13E+1(3)	5.63E+2(9)	5.65E-1(1)	3.91E+2(7) 3	3.65E+2(6)	5.42E+2(8)
Concave 3	8.38E+1(6)	2.54E+1(4)	-(11.5)	-(11.5)	5.59E+0(3)	1.31E+0(2)	4.06E+1(5)	7.81E+2(10)	5.92E-1(1)	5.08E+2(7) 5	5.80E+2(8)	6.13E+2(9)
Inverted 5	1.78E+2(6)	1.15E+2(5)	-(11.5)	-(11.5)	6.06E+1(4)	1.69E+0(2)	5.99E+1(3)	8.33E+2(10)	6.80E-1(1)	4.81E+2(7) 5	5.05E+2(8)	5.66E+2(9)
×	2.39E+2(6)	6.39E+1(5)	-(11.5)	-(11.5)	2.91E+1(3)	1.41E+0(2)	4.79E+1(4)	6.49E+2(10)	7.02E-1(1)	4.81E+2(7) 5	5.08E+2(8)	5.85E+2(9)
Triangular 10	-(11)	1.00E+2(5)	-(11)	-(11)	8.02E+1(4)	1.84E+0(2)	4.40E+1(3)	5.39E+2(9)	4.02E-1(1)	4.66E+2(7) 3	3.57E+2(6)	5.27E+2(8)
3	1.54E+2(6)	2.55E+1(4)	-(11.5)	-(11.5)	7.03E+0(3)	1.27E+0(2)	4.07E+1(5)	8.01E+2(10)	3.40E-1(1)	5.25E+2(7) 5	5.29E+2(8)	5.88E+2(9)
Convex 5	5.67E+2(9)	9.16E+1(5)	-(11.5)	-(11.5)	4.16E+1(3)	1.95E+0(1)	7.10E+1(4)	8.21E+2(10)	2.11E+0(2)	4.50E+2(6) 4	1.89E+2(7)	5.64E+2(8)
Triangular 8	-(11)	5.09E+1(5)	-(11)	-(11)	2.63E+1(3)	1.41E+0(2)	4.96E+1(4)	6.29E+2(9)	1.26E+0(1)	4.64E+2(6) 5	5.29E+2(7)	6.08E+2(8)
10	-(11)	8.27E+1(5)	-(11)	-(11)	8.17E+1(4)	1.79E+0(2)	4.13E+1(3)	5.34E+2(9)	8.11E-1(1)	4.23E+2(7) 3	3.92E+2(6)	5.24E+2(8)
Convex 3	1.05E+2(6)	2.49E+1(4)	-(11.5)	-(11.5)	5.58E+0(3)	1.28E+0(2)	3.77E+1(5)	7.92E+2(10)	5.56E-1(1)	5.33E+2(7) 5	5.66E+2(9)	5.35E+2(8)
Inverted 5	2.55E+2(6)	9.41E+1(5)	-(11.5)	-(11.5)	5.47E+1(3)	2.10E+0(2)	7.27E+1(4)	8.12E+2(10)	1.08E+0(1)	4.72E+2(8) 4	1.54E+2(7)	5.58E+2(9)
×	1.73E+2(6)	5.55E+1(4)	-(11.5)	-(11.5)	2.85E+1(3)	1.39E+0(2)	6.87E+1(5)	6.54E+2(10)	5.80E-1(1)	4.46E+2(7) 4	1.58E+2(8)	5.27E+2(9)
Triangular 10	8.04E+2(10)	8.69E+1(5)	-(11.5)	-(11.5)	8.41E+1(4)	1.80E+0(2)	5.90E+1(3)	5.77E+2(9)	4.28E-1(1)	4.62E+2(7) 3	3.40E+2(6)	5.10E+2(8)
Avg Rank	8.08	4.62	11.35	11.35	3.33	1.96	4.04	9.46	1.04	6.96	7.21	8.58

Table 5: A SUMMARY OF THE RANK OF THE 12 SUBSET SELECTION METHODS WITH RESPECT TO DIFFERENT PERFORMANCE METRICS.

Performance Metric	GHSS	GAHSS	GIGDSS	GIGD+SS	S DSS IDSS	CSS-MEA	CSS-MED	RVSS-PI	POHVSS	POIGDSS	POIGD+SS
Hypervolume	3.96	2.38	11.35	11.35	3.21 4.17	5.83	5.58	4.79	7.50	8.96	8.92
IGD	7.38	4.83	11.35	11.35	4.96 3.33	1.33	1.67	6.50	8.92	7.62	8.75
IGD+	5.46	3.12	11.35	11.35	4.50 4.08	3.33	3.17	6.00	8.71	8.83	8.08
Runtime	8.08	4.62	11.35	11.35	3.33 1.96	4.04	9.46	1.04	6.96	7.21	8.58